VARIATION IN LEAF ESSENTIAL OILS, DNA SEQUENCES AND MOPHOLOGY IN *JUNIPERUS DURANGENSIS*

Robert P. Adams
Biology Department, Baylor University, Waco, TX 76798, USA
Robert_Adams@baylor.edu

M. Socorro Gonzaléz Elizondo
CIIDIR Unidad Durango, Instituto Politecnico Nacional,
Sigma 119, Fracc. 20 de Noviembre II, Durango, Dgo., 34220 Mexico

and

Thomas A. Zanoni
New York Botanical Garden, 200th Street at Southern Blvd.
Bronx, NY 10458-5126

ABSTRACT

The leaf essential oil of *J. durangensis* is dominated by α-pinene (57.7%) and δ-3-carene (14.2%) with moderate amounts of verbenene, β-pinene, myrcene, limonene, β-phellandrene, terpinolene, linalool and elemol. The oil of the multi-seeded (5-9) Topia plants is similar to typical *J. durangensis*, except differing by containing several compounds not found in other *J. durangensis* oils: 1,8-cineole (2.8%, trace in other oils), cis-p-menth-2,8-dien-1-ol, germacrene B, patchouli alcohol, hexadecanol and sandaracopimarinal. The multi-seeded Topia junipers are recognized as a new variety, ***Juniperus durangensis*** var. ***topiensis*** R. P. Adams and S. Gonzalez, **var. nov.** *Phytologia 94(1): 40-52 (April 2, 2012).*

KEY WORDS: *Juniperus durangensis*, *J. durangensis var. topiensis,* terpenes, nrDNA, petN-psbM, trnD-trnT, trnL-trnF, trnS-trnG, SNPs, Cupressaceae, geographic variation.